In the Claims

Amend claims 1, 5, 13-15, 17 and 19 as follows:

1.   (currently amended) A method of transferring incoming multithreaded concurrent sets of data from a sending transport system to a requesting transport system comprising the steps of:

retrieving said sets of data, querying a ferris-wheel receiving queue for available data storage locations, and transferring said sets of data to said ferris-wheel receiving queue;

queuing said sets of data in said ferris-wheel receiving queue by dividing said sets of data into blocks of data, storing said blocks of data in said available data storage locations, having associated data by using location indexes to associate said blocks of data with said corresponding storage location;

performing a round robin search on said ferris-wheel receiving queue for a message structure marked as ready to transmit; and

sending said sets of data located by said round robin search and marked ready to transmit, by transmitting said associated data in said storage locations to said requesting transport system, and indicating said storage location is available for storing other said blocks of data.

2.   (original) The method of claim 1 wherein said transmitting said data is a point to point transmission.

3.   (original) The method of claim 1 wherein said data is transmitted synchronously.

4.   (original) The method of claim 1 wherein said data is transmitted asynchronously.

5.   (currently amended) A method of transferring incoming multithreaded concurrent sets of data from a sending transport system to a requesting transport system comprising the steps of:

retrieving said sets of data from said sending transport system, a ferris-wheel receiving queue being queried for a number of available data storage locations, and said sets of data being transferred to said ferris-wheel receiving queue;

queuing said sets of data in said ferris-wheel receiving queue, each said set of data being divided into blocks of data, determining a number of said data storage locations for storing said blocks of data, said blocks of data being loaded into available said data storage locations, providing location indexes for each of said blocks of data where said location indexes associate said block of data with a corresponding said storage location ;

performing a round robin search on said ferris-wheel receiving queue for a message structure marked as ready to transmit;

sending said sets of data located by said round robin search and marked ready to transmit to said requesting transport system by transmitting associated data in said storage locations, and indicating said storage location is available for storing other said blocks of data.

6.   (original) The method of claim 5 wherein said data being transmitted is sent as a single message.

7.   (original) The method of claim 5 wherein said data is being transmitted as a point to point transmission.

8.   (original) The method of claim 5 wherein said data is transmitted synchronously.

9.   (original) The method of claim 5 wherein said data is transmitted asynchronously.

10.   (original) The method of claim 5 further comprising the steps of:

calculating a required number of said data storage locations for said sets of data.

11.   (previously presented) The method of claim 10 further comprising the steps of:

determining if said ferris-wheel receiving queue has available said required number of said

data storage locations; and

signaling said retrieving process to transfer said sets of data to said ferris-wheel receiving

queue.

12.   (original) The method of claim 5 further including indicating to said requesting transport system that said sets of data are ready for sending.

13.   (currently amended) A method of transferring incoming multithreaded concurrent sets of data in a point-to-point either synchronous or asynchronous transmission from a sending transport system to a requesting transport system comprising the steps of:

> providing a circular array structured retrieving process for retrieving said sets of data from said sending transport system and retrieving said sets of data from said sending transport system;

> calculating a required number of said data storage locations for said sets of data.

> a ferris-wheel receiving queue being queried for a number of available data storage locations,

> determining if said ferris-wheel receiving queue has available said required number of data storage locations;

> signaling said circular array structured retrieving process to transfer said sets of data to said ferris-wheel receiving queue;

> said sets of data being transferred to said ferris-wheel receiving queue;

> queuing said sets of data in said ferris-wheel receiving queue, each said set of data being divided into blocks of data, determining a number of said data storage locations for storing said blocks of data, said blocks of data being loaded into said available data storage locations, providing location indexes for each of said blocks of data where said location indexes associate said block of data with a corresponding said storage location,

> providing a sending process for sending said sets of data to said requesting transport system indicating to said requesting transport system that said sets of data are ready for sending;

performing a round robin search on said ferris-wheel receiving queue for a message structure marked as ready to transmit;

transmitting associated data in said storage locations as a result of said round robin search, wherein said data being transmitted is sent as a single message; and

indicating said storage location is available for storing new said blocks of data.

14.   (currently amended) A computer program product for transferring incoming multithreaded concurrent sets of data from a sending transport system to a requesting transport system, said computer program product having:

computer readable program code means for retrieving said sets of data, querying a ferris-wheel receiving queue for available data storage locations, and transferring said sets of data to said ferris-wheel receiving queue;

computer readable program code means for queuing said sets of data in said ferris-wheel receiving queue by dividing said sets of data into blocks of data, storing said blocks of data in said available data storage locations, having associated data by using location indexes to associate said blocks of data with said corresponding storage location;

performing a round robin search on said ferris-wheel receiving queue for a message structure marked as ready to transmit; and

computer readable program code means for sending said sets of data located by said round robin search and marked ready to transmit, by transmitting said associated data in said storage locations to said requesting transport system, and indicating said storage location is available for storing other said blocks of data.

15. (currently amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for transferring incoming multithreaded concurrent sets of data from a sending transport system to a requesting transport system, said method steps comprising:

retrieving said sets of data, querying a ferris-wheel receiving queue for available data storage locations, and transferring said sets of data to said ferris-wheel receiving queue;

queuing said sets of data in said ferris-wheel receiving queue by dividing said sets of data into blocks of data, storing said blocks of data in said available data storage locations, having associated data by using location indexes to associate said blocks of data with said corresponding storage location;

performing a round robin search on said ferris-wheel receiving queue for a message structure marked as ready to transmit; and

sending said sets of data located by said round robin search, and marked ready to transmit, by transmitting said associated data in said storage locations to said requesting transport system, and indicating said storage location is available for storing other said blocks of data.

16. (previously presented) The method of claim 1 wherein said ferris-wheel receiving queue comprises a heterogeneous two-dimensional array constructed as a circular array of specific message structures.

17.   (currently amended) The method of claim 16 further comprising performing a̶ said round-robin search in the first dimension of said array and maintaining associated control variables for each message structure.

18.   (previously presented) The method of claim 16 wherein a first dimension of said two-dimensional array includes a software generated circular wheel buffer.

19.   (currently amended) The method of claim 18 further comprising performing a̶ said round-robin search in the first dimension of said array and maintaining associated control variables for each message structure.

20.   (previously presented) The method of claim 5 wherein said ferris-wheel receiving queue comprises a heterogeneous two-dimensional array constructed as a circular array of specific message structures.